CURRICULUM VITAE · OCTOBER 2026

Kerry Thornhill

Independent Researcher, contestability.ai · Graduate Student, Interdisciplinary Studies, Sinha College of AI and Advanced Analytics, University of North Texas · Founder & Director, DG Humana Institute (501(c)(3))
Dallas, Texas · kerrythornhill@my.unt.edu · kerry@kerrythornhill.com · ORCID 0009-0007-8936-0019

RESEARCH PROFILE

Independent researcher in algorithmic accountability. My current work develops the **Necessary Informational Conditions (NIC) framework**: a functional account of what an affected party must be able to investigate in order to contest an institution's automated determination. The framework takes investigative capability, rather than transparency, explanation, or a human in the loop, as the measure of informational adequacy; connects material objections to the epistemic tasks they set and the informational operations those tasks require; organizes that work in a six-function register; and specifies a five-part delivery architecture through which the work becomes possible and institutionally consequential. Its necessity claims are bounded to stated conditions, and a preregistered program of omission, substitution, and portability tests can merge, split, or retire its categories.

The research draws on twenty-five years spent on the institution's side of the asymmetry it describes: the party that controlled the grounds, kept the records, and answered to the regulator, in fiduciary brokerage under the Texas Real Estate License Act, a motor carrier regulated concurrently by FMCSA, PHMSA, and FDA, and a manufacturer subject to both FDA food-safety and OTC drug regimes. Alongside that record, a long-running practice in knowledge engineering, encoding expert underwriting judgment into rule-based screening systems: the same passage from governing standard to implemented rule that the framework interrogates.

RESEARCH INTERESTS

- Algorithmic contestability: informational conditions, evidentiary access, recourse, and institutional uptake
- Accountability and reviewability of automated decision-making in public benefits, credit, health care, and employment
- Problem formulation, measurement validity, and the fit between governing standards and implemented targets, proxies, and thresholds
- Epistemic deference to automated systems; the limits of transparency, explanation, and human review as remedies
- Relational institutional answerability and obligations arising from the exercise of private power
- Empirical taxonomy development and evaluation instruments for contestation procedures
- Knowledge engineering and rule-based decision systems, and their governance
- Human dignity, agency, and the future of work under automation

EDUCATION

University of North Texas, Denton, Texas

- Graduate study, Interdisciplinary Studies, Sinha College of AI and Advanced Analytics, January 2026–present
- Bachelor of Applied Arts and Sciences, December 2025
- Undergraduate study, Great Books program (primary-texts curriculum), 1987–1991: seminar-based reading of original works across philosophy, mathematics, natural science, and literature, taught by Socratic discussion and first-principles reconstruction

Professional education

- Texas real estate licensure: sales agent (2008), broker (2012); annual TREC continuing education including Broker Responsibility, 2008–present

CURRENT RESEARCH

contestability.ai (public since September 2026). Research program and public home for the NIC framework. The first paper identifies *effective incontestability* as a distinct failure mode, in which a formally challengeable determination stands practically beyond challenge because the affected party cannot investigate the grounds for an objection or obtain a reasoned response, and uses *K.W. v. Armstrong* (D. Idaho; 9th Cir. 2015) to show how informational and procedural obstacles interact to produce it. It develops a conditional-necessity test that separates the work contestability requires from the documents, interfaces, or expert arrangements through which that work is performed, and engages the contestability, reviewability, measurement-validity, and epistemic-deference literatures (Kaminski and Urban; Bayamlıoğlu; Cobbe, Lee, and Singh; Jacobs and Wallach; Hardwig; Lange). The companion paper develops the grounds of the obligation: how an institution's exercise of consequential private power can itself generate a duty to keep its judgments open to informed challenge and consequential reconsideration.

Planned program. Coding of a corpus of contestation episodes against preregistered rival partitions; omission and substitution experiments with prespecified adequacy floors and stopping rules; field studies measuring institutional uptake separately from informational access; a linked deference study on whether reliance on system outputs stays contributory or becomes preemptive; and a contestability toolkit (affected-party and reviewer interfaces, case generator, grounds-to-disposition record, scoring tools, domain modules for credit, public benefits, and health care) with portability tested in a held-out setting.

PUBLICATIONS & WORKING PAPERS

Thornhill, Kerry. 2026. “From Notice to Contestable Grounds: Necessary Informational Conditions for Algorithmic Contestability.” Preprint, October 2026. [server and DOI to be added on posting]

Thornhill, Kerry. In preparation. “Private Power without Epistemic Preemption: Relational Institutional Answerability in Algorithmic Decision-Making.” Preprint expected January 2027.

Thornhill, Kerry. 2026. “From Operative Determination to Contestable Judgment: One Argument Map, Three Uses.” Working document, v. 3, September 2026. University of North Texas.

RESEARCH & INSTITUTIONAL LEADERSHIP

Founder and Director, DG Humana Institute, Dallas, Texas · 2024–present

501(c)(3) public charity, classified as a scientific and educational organization in the public and societal benefit category. Founded to publish and convene interdisciplinary work on human dignity, agency, and the future of work under automation, and to serve as a home for scholars in AI governance.

- Set the institute's research agenda: algorithmic decision-making, workplace dignity, and the institutional conditions for human agency in automated systems
- Established and maintain federal tax-exempt status and Texas nonprofit registration; responsible for governance, filings, and financial oversight
- Author the institute's public writing and conceptual frameworks; manage its digital publishing presence (dghumana.com)

APPLIED DECISION SYSTEMS & ANALYTICS

Founder and Principal, Algo Bird Dog Analytics, Dallas, Texas · 2026–present

Residential real estate analytics consultancy for North Texas investors, built by formalizing proprietary screening and valuation algorithms developed over a decade of investor advisory into an automated pipeline. Automation holds operator time to a minimum by design so that research remains the principal commitment.

- Data architecture and modeling: fragmented regional datasets (appraisal-district filings, permits, off-market feeds, code citations, utility connections) and hyper-local signals feeding valuation, rental-yield, absorption, and path-of-progress scoring algorithms that now run without manual intervention
- Underwriting and delivery: mandate-specific screening, DCF and scenario models, downside stress tests; executive-ready deal memorandums with buy/pass recommendations and on-demand underwriting during live negotiations
- Governance: client confidentiality under NDA and non-compete; engagement vetting against conflicting client interests; accountable principal for a production automated decision system whose outputs clients act on with capital, a working case for the research

Knowledge engineering practice, real estate underwriting and corporate finance · 2008–present

Translating expert judgment into formal, auditable decision architectures: the practical discipline the contestability research draws on.

- Elicitation and representation: Socratic interviewing of analysts, underwriters, and tax accountants to surface tacit heuristics and edge cases; hermeneutic reading of regulatory frameworks, tax codes, accounting standards, and underwriting manuals; ontology and taxonomy design; rule-based and heuristic architectures with explicit handling of incomplete data
- Engineering and verification: rules-engine and decision-tree implementation, including neuro-symbolic tooling; integration with ERP, CRM, and financial-statement feeds; validation against historical datasets for accuracy and internal consistency
- Lifecycle and oversight: feedback loops so new precedents and rule changes update the active rule base; trace-and-explanation facilities so users, auditors, and regulators can see which rules produced a determination; review of automated lending and credit rules for systematic bias and non-compliance

Broker Manager, Plaza Real, LLC, Houston, Texas · 2014–2016

- Senior commercial real estate research and advisory role: directed the market-intelligence function across Texas and Denver for industrial and office assets, identifying properties likely to transact before they reached the market
- Managed data acquisition, surveys, and statistical modeling of vacancy, absorption, rents, and deliveries; authored quarterly market reports and white papers; expert commentary to business publications including the *Wall Street Journal*, *Houston Chronicle*, and *BisNow*

REGULATED OPERATIONS & FIDUCIARY PRACTICE

From 2015 onward these roles ran concurrently; they are grouped by function rather than strict chronology.

Owner and Operations Director, Ave Maria Transport, LLC, Dallas, Texas · 2020–2024

- Asset-based motor carrier hauling both hazardous materials and human food, subject at once to FMCSA, PHMSA, and FDA (FSMA Sanitary Transportation) authority; wound down in 2024 as the sector consolidated
- Held personal accountability under a strict-liability safety regime: PHMSA registration (49 CFR 107), hazmat employee training (49 CFR 172 Subpart H), placarding and routing (49 CFR 397), DOT security plan, and cross-contamination controls between incompatible loads (49 CFR 177.848; FSMA) with documented washouts and chain-of-custody records

- Maintained the audit record on which the carrier's standing depended: driver qualification files (49 CFR 391), Drug & Alcohol Clearinghouse, ELD hours-of-service monitoring, DVIRs, and annual inspections (49 CFR 396); MCS-90 financial responsibility and state hazmat permits

Broker and Principal, Kerry Thornhill & Associates, Dallas, Texas · 2015–present

- Independent Texas brokerage locating distressed residential properties and placing them with an established investor base, with consulting as the principal service
- Act for owners facing foreclosure: payoff and reinstatement figures from servicers, postponements with trustees, and compliant exits (cash sale, short sale, subject-to) under the Texas Property Code; lien-hierarchy analysis and payoff negotiation to clear clouded title
- Operate under anti-exploitation safeguards for a structurally disadvantaged counterparty: mandatory TREC disclosures and the federal MARS rule, with full transaction records retained for state inspection

Partner, Trinity Preston Group, LLC, Dallas, Texas · 2015–2016

- Three-partner development start-up: sourced distressed small- and mid-sized multifamily sites with redevelopment potential; a partner architect prepared plans, and property and plans were sold to developers. Coordinated pre-development due diligence (environmental, geotechnical, survey, title), municipal entitlements, consultant management, partner reporting, and single-purpose entities

Designated Broker, Texas, eXp Realty · 2013–2014

- First eXp Realty state broker in Texas; recruited the brokerage's first Texas agents. Held statutory supervisory accountability under TRELA and TREC Rule 535.2: contract review, agent competency oversight, advertising and consumer-disclosure compliance, intermediary-status management, trust-account and record-retention rules

Real Estate Agent, Virginia Cook Realtors, Park Cities, Dallas · 2008–2012

- Luxury residential representation in Park Cities, Preston Hollow, and Lakewood: valuation and pricing, off-market and private sales through SMU alumni and local networks, TREC contract and contingency negotiation, and due diligence through closing

EARLIER EXECUTIVE EXPERIENCE

The Colgin Companies, Dallas, Texas · 2001–2008 · *Chief Executive Officer* (2004–2008); *National Sales Manager* (2001–2003)

Family-owned manufacturer (about 18 employees, roughly $4M revenue) of liquid smoke, marinades, and Worcestershire sauces, and of Chigarid, an over-the-counter topical; the product mix placed the company under FDA food-processing (FSMA, HACCP) and FDA OTC drug regimes at once.

- As CEO, directed a flat organization; led private-label and co-packaging negotiations, supply-chain sourcing, capital allocation for the Dallas plant, and multi-category regulatory compliance; introduced three new liquid-smoke flavors and a smoke-flavored Worcestershire and refreshed all packaging, labeling, and branding; modernized systems (Citrix, Sage 100). Sold equity interest in 2008 and transitioned to real estate
- As National Sales Manager, took an established flat-growth brand to 30% sales growth in two years; oversaw 32 regional food brokers with direct responsibility for Walmart, Target, Kroger, Albertsons, and Costco; secured the company's first direct Walmart placement; instituted its first syndicated scanner-data research, bringing quantitative evidence into placement and trade-spend decisions

LICENSES, AFFILIATIONS & PUBLIC PRESENCE

- Licensed Texas Real Estate Broker (Texas Real Estate Commission), broker since 2012; sales agent 2008
- Former owner-operator of an FMCSA/PHMSA-registered hazardous-materials motor carrier, 2020–2024
- Research: contestability.ai · Institute: dghumana.com · Personal: kerrythornhill.com · ORCID 0009-0007-8936-0019